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Psychological Monographs: General and Applied

Aggression and Age in Relation to Verbal Expression in Nondirective Play Therapy¹

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PROBLEM

THE PRESENT study was an attempt to derive postulates from a theoretical consideration of aggression and age in relation to nondirective play therapy and to make predictions from these postulates. These predictions were then related to the types of responses that may be expected in nondirective play therapy from children of normal intelligence at various chronological age levels and of nonaggressive, intermediate, and aggressive

personality. It also seemed advisable to establish norms of play therapy data for possible use in future experiments.

It was postulated that children would manifest their aggression in their verbal behavior and, further, that aggression would be reduced in older children due to the process of socialization. From these postulates predictions were made regarding children's speech in a nondirective play therapy setting. The following hypotheses were formulated and examined.

¹The experimental foreground of this investigation was developed at Florida State University, Tallahassee; the theoretical background was reified at Carter Memorial Hospital, Indianapolis; the two segments were then blended at the School of Clinical and Applied Psychology of the Richmond Professional Institute, Richmond. The study completed, it was used by the senior author as a doctoral dissertation at Florida State University in 1956.

The writers gratefully acknowledge the assistance of: Ralph L. Witherspoon and the staff of the Nursery School and Eugene Boyce and the staff of the Demonstration School, who kindly made subjects available for more than two years; Anders Sweetland and Arnold H. Buss, the latter from Carter Memorial Hospital, both experienced therapists skilled in the evaluation of protocols, who served as judges; James Norton of the Statistical Laboratory, Purdue University, who generously shared his time and his knowledge to further this investigation; and V. J. Bieliauskas, director, School of Clinical & Applied Psychology, who thoughtfully arranged the senior author's teaching schedule to provide time for writing.

1. Not only are aggressive children more generally aggressive in their speech habits than other children, but also they are more bullying, assertive, bossy, and exclamatory in their speech. This hypothesis was investigated by examining the following types of verbal behavior: aggressive statements, threatened playroom rules, expression of definite decisions, and exclamations.

2. Since the imaginary dialogue of storytelling provides an excellent medium for aggressive expression and assertion, the speech of aggressive children contains more story units than that of other children.

3. Assuming that the aggressive child finds assertive experiences rewarding, it was hypothesized that in his speech he makes more favorable statements about himself, evidences more interest in the counselor, and makes more attempts to establish a relationship with the counselor than do nonaggressive children.

4. The relationship of the nonaggressive child to the counselor is presumably more one of dependency than of interest. Hence, it was hypothesized that nonaggressive children more frequently make unfavorable statements about themselves, express more indecision and doubt,

and make more attempts to shift responsibility to the counselor than do aggressive children.

5. It was also hypothesized that nonaggressive children have more conventional expressions of politeness in their speech than aggressive children. For example, aggressive children were expected to utter more "Hey!" and "Darn!" statements (hypothesis 1 above), while it was anticipated that the nonaggressive children would make more statements of "Hello," "Yes," and "Mmm," type.

In accordance with each of these hypotheses, based on amount of aggression, children with an intermediate amount of aggression should make statements whose frequency falls between the aggressive and nonaggressive children.

These statements made about aggressive and nonaggressive children were hypothesized upon the amount of aggression expected to be manifested in their speech during nondirective play therapy. Similar hypotheses were made about children at different age levels based upon the amount of aggression expected to be manifested at those levels. These hypotheses were as follows:

6. Children's speech is especially aggressive during their fourth and sixth years. Though children may be more aggressive during their fourth than sixth year, such aggressiveness does not generally find verbal expression as much during the fourth year as it does during the sixth, when speech habits are more developed. As the child continues to advance chronologically and, presumably, is subjected to increased socialization, the aggressive aspects of his speech are tempered. Consequently, at the ninth year verbal manifestations of aggression are still high, but not as high as they are during the sixth and fourth year of life. By the twelfth year the aggressive qualities of speech are negligible compared to the earlier years of life.

7. The younger children are expected to be more assertive or dominant than the 12-year-olds in their statements. In other words, younger children, because of their heightened aggressiveness, are hypothesized to make more of their own decisions about their playroom activities and attempt to shift fewer responsibilities to the therapist than would 12-year-old children.

8. Four-year-old children, because of their greater aggressive diffusion, test the limits of

the playroom more frequently than older children. The 12-year-old children, having been subjected to the most socialization, do the least amount of limit exploring. Twelve-year-old children confine their interests to routine questions indicative of curiosity or of a desire for information, rather than questioning how much they may get away with in the playroom. The difference in the verbalizations to be examined concerns statements of this type: It was hypothesized that the four-year-old child asks, "You can break the windows?" The 12-year-old, instead, asks such things as, "How come you brought me?" or, "Does this work like thus and so?"

9. The greater aggressiveness or dominance of children four, six, and nine years old results in attempts to relate to the counselor and evidence interest in him, rather than passively accept him. Presumably the older child waits for the counselor to make the initial moves in indicating the nature of the relationship. The 12-year-old, being less aggressive, is not so interested in establishing his position in the playroom. To the younger child the establishment of his place is important. Consequently, younger children are also expected to make more favorable statements about themselves than are older children.

10. Another way the more aggressive child can establish the assertive atmosphere he presumably finds rewarding is through the medium of stories. Hence, as a result of increasing socialization as well as more mature speech habits, it was hypothesized that children at the 12-year level tell fewer stories in the playroom than do children at younger ages. The six-year-olds are expected to tell the most stories since their speech habits are presumably superior to those of the four-year-olds.

11. The 12-year-old children are more polite as well as more adept conversationally than the younger children. Hence, when the 12-year-old speaks he utters more such phrases as, "Good-bye," and, "Excuse me," than younger children. Instead of telling aggressive stories the 12-year-old speaks of his family, school, pets, etc. to a greater extent than younger children. Similarly, it was hypothesized that the more socialized 12-year-old does less talking to himself and makes fewer sound effects as he plays than do younger children.

METHOD

Subjects for the present experiment were selected on the basis of chronological age, intelligence test score, and aggressiveness.

Chronological Age

To be considered chronologically representative a child could not vary more than four months from the age of 4, 6, 9, or 12 years. Since speech was the dependent variable of this investigation, children who could not play and talk at the same time were not suitable candidates for the experiment. The imperfect physical coordination of the three-year-old makes it difficult for him to perform two motor acts, such as dressing and talking, simultaneously. The four-year-old child can perform two such motor acts simultaneously. It has also been noted that at four years the child ceases the mere manipulation of toys and becomes interested in more constructive play activities. At this age also the child is said to become susceptible to flattery, to dread being made to feel ashamed, and to become concerned with the effect he produces on those around him. In brief, at about four years of age, the child's personality takes on a definite structure, contrasting rather sharply with the earlier undifferentiated picture. Consequently, it did not seem necessary to select children younger than four years of age for inclusion in the present experiment.

The lower limit of suitable age has been established by the maturational process. As for the upper limit of age, it was established on the basis of the general agreement that the possibility of successful play therapy decreases somewhere near the twelfth year of age.

Intelligence Quotient

To be considered intellectually satisfactory, a child's Stanford-Binet IQ score could not vary more than one standard deviation from the normal IQ of 100. This requirement was established in an attempt to circumvent the possible influence of extremely high and low intelligence on the types of statements children might make.

Beller Scales

Ratings of aggressive behavior were obtained through the use of the Beller scales (1). These scales are teachers' ratings of student classroom behavior. The scales include behavioral items on such factors as dependency, independence, dominance, submission, and aggression. They have been described as a reliable and significant measure, with "little overlapping among the rating scales used separately . . ." (1, p. 62).

The scale items determining aggression involve two items of verbal and two items of physical aggression. The highest positive correlation cited by Beller is that between these items. However, a study, such as the present one, concerned with types of statements rather than

physical indices of aggression should pay attention to the verbal habits of the children selected for study. More scale items concerned with verbalizations would seem to be a desideratum. Consequently, Beller's dominance scale, consisting entirely of items concerned with verbal behavior, was also employed. Beller's dominance and aggression scale items have been shown to have a statistical relationship. They also have a theoretical relationship which may be described in terms of the bossing and bullying of aggressive children. The aggressive child is also the verbally dominant child.

Additional evidence of the relationship between dominance and aggression is furnished by Griffiths (3). Griffiths' investigation seems to have equated characteristics called dominance by Beller with the total concept of aggression. Because of the emphasis on speech in the Beller dominance scales as well as the close relationship between aggression and dominance, both scales were employed in the present investigation.

Both scales have good reliability. Four pairs of raters achieved reliability figures ranging from .78 to .97 for items concerned with verbal aggression, and .81 to .97 on physical aggression. The scale items measuring dominance yielded *r*'s of agreement ranging from .86 to .97. Both scales include only behavioral items readily apparent from the child's interaction in the classroom. The scale items make no attempt to measure the child's attitudes toward his teacher or classmates.

In the present experiment the children's teachers served as their raters, and the children's classroom behavior furnished the source for their rated behavior.

Beller (1) obtained groups of children by selecting for his experiment those with high and low scores on the scales. A high score was defined as a mean rating score of 5 or more and a low score as a mean rating of 3.5 or less. The present experiment followed his method with the exception of introducing an intermediate group, i.e., those with scores falling beyond 3.5 but not reaching a score of 5. The intermediate group was selected in an effort to give continuity to whatever trends might be found.

Number of Subjects

Just as the senior writer did not rate the subjects of the present experiment, in order to avoid gaining any preconceptions about a child's aggressiveness, so he did not examine a child's Beller scales until the child's play therapy sessions were ended. Upon completing his play therapy experience the child's Beller scale was scored and he was assigned to the aggressive, intermediate, or nonaggressive groups.

There were 20, 22, 24, and 25 children aged

4, 6, 9, and 12 years respectively and 26, 27, and 36 children falling into aggressive, intermediate, and nonaggressive categories respectively.

Nondirective Play Therapy Sessions

Children found to be chronologically and intellectually suitable for inclusion in the present investigation were given three one-hour individual nondirective play therapy sessions with the same therapist in the same playroom. Three sessions were chosen because:

1. The child would have had an opportunity to become familiar with the playroom. His time would not be spent exploring the room.
2. The child would have selected his favorite play activities, if such a selection were to be made, and would be behaving in a characteristic manner.
3. The experimenter would no longer be a stranger to the child.
4. The child would have discovered the freedom of the room and would not play in a constricted manner if he did not wish to.
5. The meetings would not have become tiresome to the child.

The therapy records were kept in verbatim style, i.e., records were made during the play therapy sessions, both child and therapist responses were recorded, and the material was recorded exactly as spoken. This method was said to be the most reliable and complete when phonographic recording could not be used. It was expected that the inclusion of category W, to be described later, would make the record protocols even more complete than they would have been otherwise.

Borke Categories

The statements made by the children were categorized for comparison. The Borke categories (8) were employed for this purpose. These categories were originally developed by Helene Finke (2) and have twice undergone revision and expansion by the senior writer (7, 8). To avoid confusion, the categories employed in the present study have been given Helene Finke's married name, Borke. The differences between Finke's original, unpublished categories, the revised Finke categories, and the Borke categories are treated elsewhere (8).

One difference not specifically treated elsewhere is that of recording incomprehensibility in some children's speech. No previous investigation of the process of nondirective play therapy dealt with incomprehensible speech as part of the category system. Yet it seems unlikely that many investigators could have understood 100 per cent of what the children said. Studies ignoring incomprehensible speech should probably be

interpreted either as having recorded only comprehensible responses or as having ignored the incomprehensible remarks with such phrases as "words lost here." Category V of the Borke categories consists of sound effects, vocalizations which are not speech but which pertain to the child's play. Category W is deliberately set up to make mumbling or talking to self in a voice too low to be heard a part of the frequency count of the child's category usage.

Twenty-two of the 644 pages of verbatim style records were categorized by three experienced play therapists. These pages were selected on the basis of a table of random numbers. Finke (2), using five inexperienced judges, found that the percentages of agreement between her original analysis and that of the judges ranged from 66 to 77 per cent. In a previous investigation (7) the percentages of agreement between the criterion judgment and that of two experienced judges were 71 and 78 per cent. The percentages of agreement between the senior writer's judgment and that of two judges experienced in play therapy and skilled in the evaluation of protocol were 77 and 81 per cent for the present experiment.

In addition, it was possible to determine the similarity of category usage by an over-all measure of concordance among the three judges of the present study. The communality of judgments for the three observers was determined by the *W*-statistic (4). The coefficient of concordance of the rank order of each category was .84. This figure was found to be significant at better than the .01 level of confidence. It indicates a significantly high degree of similarity in the rank order of the judges' 662 categorizations. Thus, the categories have been found sensitive in the differentiation of statements made by children in play therapy.

The Borke categories employed in the present study are shown immediately below.

HELENE BORKE CATEGORIES FOR QUANTIFYING THE PLAY THERAPY PROCESS

A. *Curiosity about the situation and things present in it.* (Why did you choose me? Anyone else been here? Who owns these toys? Who drew that picture?)

B. *Simple description, information, and comments about play and playroom.* (This is an army. These are prisoners. More marbles. The room's different.)

C. *Statements indicating aggression.* (All references to fighting, shooting, storms, burying, drowning, death, hurting, destroying, etc.)

D. *Story units.* (1. Unconnected with play. Stories obviously farfetched or too exaggerated and inconsistent to have occurred. 2. Any

imaginary dialogue or story plot wound around the play, such as: He guards the opening. He's asleep. He doesn't know they're after him. I'm taking them to the army.)

E. *Definite decisions.* (I'm going to build a bridge. I said I'd do it and I did. Just what I wanted. Did it.)

F. *Inconsistencies, confusion, indecision, and doubt.* (My mother has two children, no, one. My brother is half my age and he's much taller. My sister's birthday was the day before mine last year but mine is before hers this year. I'm not sure what I should do. I wonder if this will work.)

G. *Exploring the limits of the playroom.* (Can I take this home? Can I get water? Can I paint this? I'm going to take this. One second. I can stay longer.)

H. *Attempting to shift responsibility to the therapist.* (What should I do next? Is this deep enough? Is this good? Do you like this?)

I. *Evidence of interest in the counselor.* (Were you here yesterday? What do you do? How are you? Can I trust you? Have you read such and such a book?)

J. *Attempting to establish a relationship with the counselor.* (Guess. Bet you can't guess. What's this? Look at that. See. Do you know what I'm going to do? Want to see how cars crash? Will you help me? You do this and I'll do that.)

K. *Negative statements about the self.* (I'm dumb. I'm afraid. I never win.)

L. *Positive statements about the self.* (I'm good in school. I can do that. I play marbles best. I'll win it back.)

M. *Negative statements about the family, school, things made or present in the playroom, the situation, activities, etc.* (Is there going to be new sand? I wish this was bigger. I don't like my sister. I wish I had more toys at home.)

N. *Positive statements about the family, school, things made or present in the playroom, the situation, activities, etc.* (I like it here. This doll is so pretty. We just got a wonderful new puppy at home.)

O. *Straight information and stories about the family, school, pets, teacher, self, etc.* (We have a big house. I went to the park yesterday. I have a sister. I was waiting for you. I thought you were my mother.)

P. *Questions for information.* (Do birds have ears? Where is the paint? How does this work?)

Q. *Questions or comments pertaining to time during the interview.* (How much longer do we have? I bet there are fifteen minutes left. Do I have time to play?)

R. *Exclamations.* (Here we go again! Hey! Darn! Oh! Crazy! Ahhh!)

S. *Unclassifiable.* (Yes. Mmmmm. OK. Hello. Goodbye. Excuse me. Any answer to a question

or a pure repetition of counselor's words.)

T. *Insightful statements revealing self-understanding.* (When I worried it made me steal. I wasn't loud but I was mean.)

U. *Ambivalent statements.* (I'm scared in here but I like to come here. I'd like to paint now and blow bubbles too.)

V. *Sound effects.* (Vocalizations which are not speech. Such noises as clucking, siren, machine gun, explosion, airplane, etc.)

W. *Mumbling or talking to self in a voice too low to be heard.* (Statements which cannot be heard and which the child does not direct to the therapist.)

RESULTS

The extensive data of the present investigation indicated that a normal distribution did not prevail for the categories.

Bartlett tests were applied to 16 of the categories. All but one of these tests were significant at better than the .01 level of confidence; the remaining test was significant at better than the .05 level. The data were transformed by both the square root and logarithmic methods in an effort to change the scale measurement to one in which the variance would be more homogeneous, i.e., less of a departure from normality. The square root transformation yielded significant Bartlett tests on nine of the categories. The log transformation gave 10 significant Bartlett tests. Six of the categories reached significance in both cases.

Evidently a statistical test that did not require the assumption of approximate normality was needed to test the hypotheses of the present experiment. The Kruskal-Wallis H test was used (5). This nonparametric statistic seemed to be the most sensitive of those available for application to the present data.

Results of a one-criterion variance analysis for ranks (based on frequency of Borke category usage) in relation to aggressiveness ($k = 5$) indicated that all of the categories save T and U reached significance. A similar analysis for rank in category usage in relation to age ($k = 4$) yielded significant H tests for all but four of the categories.

In every case of significance those children demarcated as aggressive had a higher rank-order (based on frequency of

Borke category usage) than children with intermediate or nonaggressive patterns of behavior. In every category found to have significant differences, those children indicated by their teachers as being intermediate in aggression had a higher rank-order usage of the various categories than did children selected as nonaggressive.

The *H* test could not be performed on Category T (insightful statements revealing self-understanding) as such statements were made so infrequently that statistical treatment was impossible. Category U (ambivalent statements) was nonsignificant, evidently because the children of all three groups employed it with roughly equivalent frequency.

In the analysis of the four age-groups, the nonsignificant categories once again include T and U. The two other nonsignificant categories are A (curiosity about the situation), and H (attempting to shift responsibility to the therapist). Category A had the same mean rank (based on frequency of usage) for the 4- and 6-year-old children (the mean rank was 52) and virtually an identical mean rank for the 9- and 12-year-old children (39 and 38, respectively). Category H had roughly the same mean rank for 4-, 6-, and 9-year-olds (48, 49, and 45, respectively), and the lowest mean rank for the 12-year-olds (38).

For those categories which yielded a significant *H* test the six-year-olds had the highest mean rank in 14 of the categories, and the four-year-olds in the remaining 5 categories. In all of the significant categories the 12-year-olds had the lowest mean rank score.

These probability statistics show that there is a relation greater than zero, in the nondirective play situation, between verbal expressiveness, on the one hand, and aggressiveness and chronological age

TABLE 1
ABBREVIATED SCATTER DIAGRAM OF THE
RELATION BETWEEN THE AGGRESSION
VARIABLE AND CATEGORY C (STATEMENTS
INDICATING AGGRESSION)

Rank	Aggressive (<i>N</i> = 26)	Inter- mediate (<i>N</i> = 27)	Non- aggressive (<i>N</i> = 36)
81-89	9		
71-80	7	2	
61-70	3	6	3
51-60	4	3	3
41-50	1	4	6
Less than 41	2	12	24

Note.—The higher the rank, the more frequent the usage.

on the other. The nature and magnitude of two of these relationships, on an illustrative level (for Borke category C), are presented in Tables 1 and 2. Table 1 depicts an abbreviated scatter diagram of the influence of the aggression variable on category C (statements indicating aggression). Table 2 shows an abbreviated scatter diagram of the relationship of the age variable and the same category. Category C was chosen because it was significant at the .01 level of confidence for both aggression and age and seems, by its nature, to be of major interest in the present study.

The results suggest that aggression and

TABLE 2
ABBREVIATED SCATTER DIAGRAM OF THE
RELATION BETWEEN THE AGE VARIABLE
AND CATEGORY C (STATEMENTS
INDICATING AGGRESSION)

Rank	Chronological Age			
	4 (<i>N</i> = 20)	6 (<i>N</i> = 22)	9 (<i>N</i> = 24)	12 (<i>N</i> = 23)
81-89	2	4	3	
71-80	1	3	4	1
61-70	2	6	3	1
51-60	4	4	1	1
41-50	6		3	2
Less than 41	5	5	10	18

Note.—The higher the rank, the more frequent the usage.

age make an important difference in usage of the Borke categories. Aggressive children employed significantly more of all significant speech categories than did the children demarcated as intermediate or nonaggressive. When age is considered, the 6-year-olds or the 4-year-olds earned the highest mean rank for category usage, the 12-year-olds the lowest.

Apparently the aggressive children and the 6- or 4-year-old children do so much talking in the nondirective playroom that they overshadow other children with respect both to frequency and types of statements. An equivalent method, but one that takes *relative* frequency, instead of absolute frequency, into account, is therefore needed. Consequently, the *H* test was adopted for studying the relative frequency of use of each Borke category (i.e., the percentage of the total number of statements made by each

child that fell into each category). For example, one child made 695 statements that fell into 21 categories. Of these statements, 1.2% fell into category A, 31.8% fell into category B, and so on until 100% of his statements had been categorized. Similarly, percentages were obtained for the remaining 88 children. These percentages were then ranked for each category, and the *H* test was applied to these ranks based on the percentages.

Table 3 presents the *H* test results on the relative category use of the groups classified according to aggressiveness, and Table 4, according to age. To make inspection and visual interpretation easier, the means of ranks for each category are presented.

As can be seen from Table 3 when the *relative* frequency of each category is considered, only 11 of the categories reach significance. One of these cate-

TABLE 3
MEAN RANK OF PERCENTAGE OF CATEGORY USAGE BY CHILDREN IN AGGRESSIVE, INTERMEDIATE, AND NONAGGRESSIVE GROUPS, WITH THE *H* TEST FIGURES AND THEIR SIGNIFICANCE LEVELS

Category	Aggressive (<i>N</i> = 26)	Inter. (<i>N</i> = 27)	Non. (<i>N</i> = 36)	<i>H</i>	Sig. Level
A. Curiosity.....	52	47	38	4.98	Nonsig.
B. Description.....	50	52	36	6.85	.05
C. Aggression.....	70	40	31	38.44	.01
D. Story Units.....	54	49	36	10.25	.01
E. Decisions.....	56	40	41	6.73	.05
F. Doubt.....	46	47	43	.37	Nonsig.
G. Exploring Limits.....	63	45	32	24.92	.01
H. Shift Responsibility.....	45	46	44	.09	Nonsig.
I. Interest.....	55	48	35	11.20	.01
J. Attempting Relations.....	55	49	35	10.05	.01
K. Negative About Self.....	56	30	41	8.02	.02
L. Positive About Self.....	60	45	34	18.23	.01
M. Negative About Others.....	47	46	42	.62	Nonsig.
N. Positive About Others.....	53	45	39	4.41	Nonsig.
O. Information.....	49	46	42	1.16	Nonsig.
P. Asking for Information.....	41	46	47	.73	Nonsig.
Q. Time Questions.....	48	52	38	5.28	Nonsig.
R. Exclamations.....	55	45	38	6.43	.05
S. Unclassifiable.....	33	41	57	14.75	.01
T. Insight.....	—	—	—	—	—
U. Ambivalence.....	52	42	42	4.39	Nonsig.
V. Sound Effects.....	54	43	40	5.48	Nonsig.
W. Talking to Self.....	52	40	44	5.01	Nonsig.

Note.—All mean ranks have been rounded to the nearest whole number.

TABLE 4
MEAN RANK OF PERCENTAGE OF CATEGORY USAGE BY CHILDREN IN FOUR AGE GROUPS,
WITH THE *H* TEST FIGURES AND THEIR SIGNIFICANCE LEVELS

Category	Age				<i>H</i>	Sig. Level
	4 (<i>N</i> = 20)	6 (<i>N</i> = 22)	9 (<i>N</i> = 24)	12 (<i>N</i> = 23)		
A. Curiosity.....	52	46	36	48	4.99	Nonsig.
B. Description.....	56	47	39	39	6.44	Nonsig.
C. Aggression.....	49	55	48	28	14.90	.01
D. Story Units.....	50	58	46	28	20.82	.01
E. Decisions.....	51	50	48	33	7.60	Nonsig.
F. Doubt.....	35	49	53	41	6.34	Nonsig.
G. Exploring Limits.....	63	50	40	29	23.79	.01
H. Shift Responsibility.....	46	39	46	49	2.01	Nonsig.
I. Interest.....	62	48	38	35	15.82	.01
J. Attempting Relations.....	64	50	39	29	22.55	.01
K. Negative About Self.....	44	56	47	34	9.12	.05
L. Positive About Self.....	54	45	49	34	8.70	.05
M. Negative About Others.....	44	52	44	40	2.58	Nonsig.
N. Positive About Others.....	44	49	47	40	1.76	Nonsig.
O. Information.....	48	51	40	42	2.71	Nonsig.
P. Asking for Information.....	52	38	38	54	7.71	Nonsig.
Q. Time Questions.....	60	54	35	34	17.49	.01
R. Exclamations.....	41	53	47	39	4.12	Nonsig.
S. Unclassifiable.....	23	39	49	66	30.25	.01
T. Insight.....	—	—	—	—	—	—
U. Ambivalence.....	47	46	49	38	4.16	Nonsig.
V. Sound Effects.....	52	57	43	30	16.90	.01
W. Talking to Self.....	43	55	52	30	17.23	.01

Note.—All mean ranks have been rounded to the nearest whole number.

gories, S (unclassifiable statements), reaches maximum relative usage by the nonaggressive children. Table 4 reveals 11 significant categories; of these, eight of the categories are significant also in Table 3. Category S, once again, is employed relatively more frequently by a nonaggressive group; this time it is the 12-year-olds.

Application of the *H* test to ranks based on relative frequencies would seem to sharpen its sensitivity to the extent of enabling it to pierce the massive verbal wall of the aggressive children and the 6- and 4-year olds. The results obtained from such usage will be those discussed in detail.

DISCUSSION

The outstanding finding of the present study would seem to be that aggression

and age exert a marked influence on the amount and variety of speech produced by normal children in the nondirective play therapy situation. So pervasive is this influence that future research in nondirective play therapy should seek to control these factors. Aggression and age should also be considered in theoretical formulations of nondirective play therapy. Rather clearly, not all subjects do make the same types of verbalizations in nondirective play therapy. The "regularity" of the process of nondirective play therapy is seriously questioned.

More specifically the results of the present study indicate that there is a difference in category usage of children noted as aggressive, intermediate in aggression, and nonaggressive as well as of children at different age levels.

On the basis of aggressiveness it was hypothesized that the children in the aggressive group would make more aggressive statements (category C) and threaten the rules of the playroom

(category G) to a greater extent than would children with teacher ratings of intermediate aggression or nonaggression. Table 3 indicates that both these differences are significant at the .01 level of confidence in the hypothesized direction. Aggressive children also voiced significantly more definite decisions (category E) and made more exclamatory statements (category R) than did children in lesser aggression categories. The first hypothesis received complete support by significant *H* tests.

Aggressive children also told significantly more stories (category D) than did other children. As was hypothesized, the aggressive children evidenced significantly more interest in the counselor (category I) and did make significantly more attempts to establish a relationship with the therapist (category J).

It is interesting to note the findings in regard to categories K and L (negative and positive statements about the self, respectively). The aggressive children made significantly more of both kinds of statements. This finding is interesting since it was hypothesized that it was the nonaggressive child who should make more K statements.

It seems possible that aggressiveness, in normal children, may be related to willingness for self-exploration, or at least willingness to verbalize opinion about the self. Consequently, in normal children aggression, like intelligence (6), may be related to insight. The important question of the nature of this relationship cannot be answered by the present investigation—first, because only normal children were used as subjects, second, because too few insightful statements (category T) were made to be considered.

In addition to the prediction that nonaggressive children would more frequently make unfavorable statements about themselves, hypothesis 4 also contained the expectation that aggressive children would make fewer attempts to shift responsibility to the therapist (category H) and would make significantly more expressions of indecision and doubt (category F). The differences in the usage of category H were nonsignificant (the intermediate group, in fact, had a slight increase over the aggressive group). Differences in expressions of indecisions and doubt were also nonsignificant.

It was further hypothesized that children designated as nonaggressive would make more conventionalized expressions (category S) than aggressive children. This hypothesis was supported by the *H* test.

Children with ratings of intermediate aggression and those in the aggressive group made significantly more comments about their play than did the nonaggressive children. As can be seen from Table 3, this was the only time a signifi-

cant difference was achieved with the intermediate aggression group having higher relative mean rank usage than the group designated as aggressive.

As was hypothesized, there was a significant difference in the employment of statements indicating aggression (category C) at various age levels, with the six-year-old children making the most such statements. In turn, as was also hypothesized, they were followed by the four-year-olds, by the nine-year-olds, and, lastly, by the 12-year-olds, who made the fewest such statements.

Twelve-year-old children were further hypothesized to make fewer definite decisions (category E) and to make more verbal attempts to shift responsibility to the therapist (category H). Neither of these hypotheses was supported by the *H* test (though the differences were in the expected direction).

Because the aggressiveness of the four-year-olds was said to be more diffuse, it was hypothesized that this age-group would make more statements indicating a testing of playroom limits (category G). Table 4 indicates that this hypothesis was borne out. With some slight departure from linearity a marked reduction is evident from one age-level to another. The 12-year-olds were also hypothesized to confine their curiosity to questions (categories A and P). The differences among the four age-groups were found to be nonsignificant for category A (curiosity about the situation and things present in it). The 12-year-olds, however, did employ this category more frequently than did the 6- and 9-year-olds. Category P (asking for information) was similarly nonsignificant. Here the 12-year-olds achieved a slight lead over all other age-groups in category frequency. Twelve-year-old children evidenced significantly less interest in the counselor and made fewer attempts to establish a relationship with him (categories I and J) than did children at other age levels, as was hypothesized. A significant difference in statements about the self was also obtained. As was hypothesized, the 12-year-old children made the fewest such statements.

Twelve-year-old children did employ significantly fewer story units (category D) than children at other age levels. The 6-year-old children made most use of story units, as hypothesized.

While 12-year-old children may be more adept at conversation than 4- and 6-year-old children, they did not offer more information about their family, school, pets, etc., than younger children. The *H* test figure for the category including such statements (O) was insignificant. However, on the positive side the 12-year-old children did utter significantly more polite but meaningless phrases (category S), did make significantly fewer

sound effects (V), and did less talking to themselves (W) than did children at younger age levels.

The significant group-differences in categories V and W are not surprising in view of the fact that their addition to the revised Finke categories was primarily to "serve to emphasize differences in speech habits between young and older children" (8). They were originally included on theoretical grounds. They received in this experiment their first empirical baptism. Interestingly enough the factor of aggressiveness did not influence them significantly.

Although no hypothesis was advanced concerning category Q (questions or comments pertaining to time during the interview) this category is one of the significant ones of Table 4. Perhaps category Q is significantly less frequently used by 12-year-olds for the same reason that S is employed more frequently. That is to say, perhaps the 12-year-old children realize it might be construed as impolite to ask, "How much longer do we have to stay in the playroom?" Usage of category Q may be a matter of aggression with the younger children who wish to assert themselves and to indicate a desire for termination by asking, "Is it time yet?" Or, perhaps, the answer is simpler than these theoretical speculations; the 9- and 12-year-olds may have had more wrist watches than the 4- and 6-year-olds and so may not have had to ask questions pertaining to time.

In summary, then, the information contained in Tables 3 and 4 indicates that:

1. The speech of the aggressive children contained significantly more comments about their play, aggressive statements, story units, definite decisions, explorations of the limits, evidences of interest in the counselor, attempts to establish a relationship with the counselor, negative statements about the self, positive statements about the self, and significantly more exclamations than did the nonaggressive group of children.

2. The speech of the aggressive children contained significantly fewer unclassifiable remarks (Yes, Hello, OK) than the speech of the non-aggressive group.

3. The speech of the younger children (those aged 4 or 6, and sometimes also those aged 9), contained significantly more aggressive statements, story units, explorations of the limits, evidences of interest in the counselor, attempts to establish a relationship with the counselor, negative statements about the self, positive statements about the self, comments pertaining to time, sound effects, and significantly more statements which could not be heard than did the children aged 12 years.

4. The speech of the younger children contained significantly fewer unclassifiable remarks (Yes, Hello, OK) than did that of the 12-year-olds.

It is interesting to notice that of the 11 significant differences indicated on the basis of aggression (Table 3), 8 of them also reached significance on the basis of age (Table 4). Once again the close correspondence between age and aggression is made manifest.

It would seem to be wise for nondirective play therapy to recognize and allow for the factors of aggression and age in its theoretical schema, if accurate predictions are to be made in that system. Without considering age and aggression the research methodology of nondirective play therapy may be seriously impeded. The recognition of the place of aggression in a child's normal development, both as a normal innate impulse and a normal expression of behavior, would be helpful in removing nondirective play therapy from the morass of procedural sameness that threatens it at present. The therapist seeks to modify the destructive element of aggression, while permitting the child to utilize this basic impulse in the service of a well-directed drive. It would seem that nondirective play therapy, to the extent that it sets realistic limits in an atmosphere of respect and confidence, already fulfills this therapeutic requirement. However, the theory of nondirective play therapy has been unaware of the role of the child's aggressive impulses and has failed to take into account differences in age. It is time both these factors were incorporated into its system.

SUMMARY

Nondirective play therapy, a method which arose from the postulates of client-centered therapy, does not formally consider the influence of aggression or age in its method. Studies of the process of nondirective play therapy, whether protocol-centered or child-centered, generally reveal the belief that children undergo

the same process, no matter what their age. The factor of age usually has been ignored or poorly controlled, while the factor of aggressiveness has not been considered.

From a theoretical consideration of aggression and age certain hypotheses were formulated. The hypotheses were then tested on a group of 89 children of normal intelligence selected on two bases. The first of these bases was that of age; there were 20, 22, 24, and 23 children aged 4, 6, 9, and 12 years respectively. The second basis for selection was teachers' ratings of classroom behavior. According to these ratings, 26 children were designated as aggressive, 27 as intermediate in aggression, and 36 as nonaggressive. These children were given three one-hour individual sessions of nondirective play therapy with the same therapist, in the same playroom. Verbatim style notes were made of their speech and vocalizations. These protocols were classified according to the Borké categories (8). It was according to these speech categories that specific predictions were made:

1. Aggressive children should make more aggressive statements, threats to playroom rules, expressions of decisions, and exclamations than nonaggressive children.
2. The speech of aggressive children should contain more story units than that of other children.
3. The aggressive child should make more favorable statements about himself, evidence more interest in the counselor, and make more attempts to establish a relationship with the counselor than nonaggressive children.
4. Nonaggressive children should more frequently than aggressive children make unfavorable statements about themselves, express more indecision and doubt, and make more attempts to shift responsibility to the counselor.
5. Nonaggressive children should have more conventional expression in their speech than aggressive children.
6. Six-year-old children should make the majority of aggressive verbalizations. They would be followed closely by those children 4 years old

who, in turn, would be followed by those 9 years old. The 12-year-old children should make the least use of speech falling into this category.

7. Younger children were hypothesized to make more of their own decisions about their playroom activity and attempt to shift fewer responsibilities to the therapist than the 12-year-old children.

8. Four-year-old children should test the limits of the playroom more frequently than older children. Twelve-year-old children should express more curiosity about the playroom and ask for more information than younger children.

9. Younger children should make more attempts to relate to the counselor, evidence more interest in him, and make more favorable statements about themselves than children 12 years of age.

10. Twelve-year-old children should employ fewer story units in their speech than younger children. Children 6 years old should use the most story units.

11. The 12-year-old child should utter more phrases such as, "Goodbye," and, "Excuse me," than younger children. The 12-year-old should also speak of his family, school, pets, etc., to a greater extent, and do less talking to himself and make fewer sound effects, than younger children.

The results of a one-criterion variance of analysis of the relation between category usage and aggressiveness, and between category usage and age, revealed significant differences in connection with a large majority of the categories. Aggression and age apparently made such an overwhelming difference in category usage that the aggressive children and the 4- and 6-year-old children employed more of all the speech categories demarcated as significant by the *H* test. These children, evidently, did so much talking that the specific hypotheses were obscured in a verbal fog. To discern meaningful differences, the *H* test was employed to study differences between ranks based on the *percentage-frequency* of use of each category by the three aggression-groups and the four age-groups, respectively.

From this analysis it was found that hypotheses 1, 2, 3, and 5 received statis-

tical substantiation in the three aggression-groups. Hypothesis 4 did not. The part of the hypothesis concerned with negative statements about the self not only failed to be supported but was flatly contradicted. The possible important applications of this contradiction were discussed.

From the analysis based on the percentage-frequency of use of each category by the four age-groups, it was found that hypotheses 6, 9, and 10 were supported. Hypotheses 7, 8, and 11 did not receive complete statistical confirmation. However, the trends were generally in the expected direction.

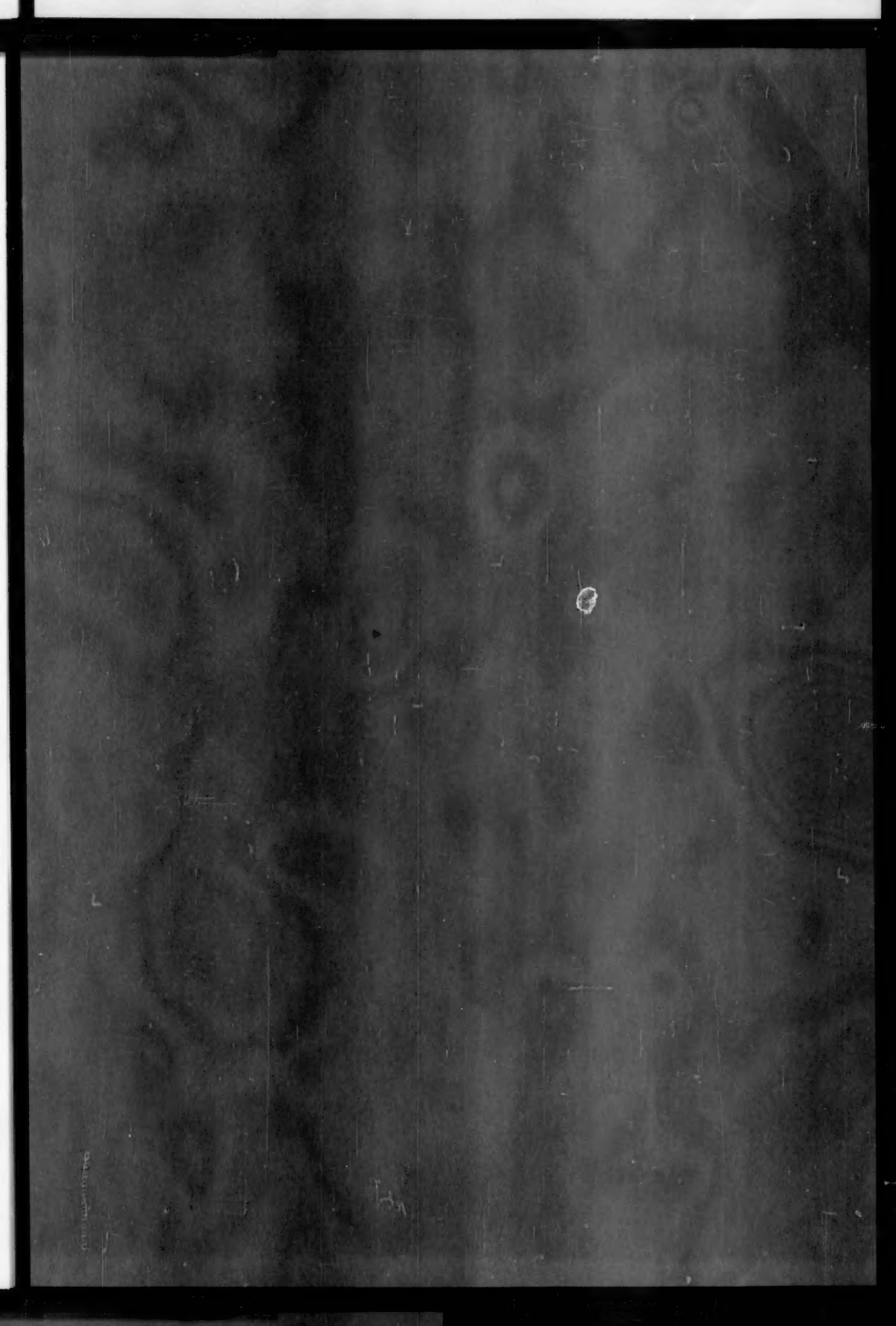
Most of the hypothesized differences in

speech categories were fully or partially substantiated. These substantiations suggest that the theories advanced concerning aggression and age can be utilized to predict the types of statements finding predominant expression in nondirective play therapy. The process of nondirective play therapy, as indicated by children's verbalizations in the playroom, does not seem to be the same for all children. Children of different aggression and age-groups respond differently, and in a predictable manner. Consequently, it is suggested that the factors of aggression and age require explicit consideration in the formal theoretical structure of nondirective play therapy.

REFERENCES

1. BELLER, E. K. Dependency and independence in young children. Unpublished doctor's dissertation, State Univer. of Iowa, 1948.
2. FINKE, HELENE. Changes in the expression of emotionalized attitudes in six cases of play therapy. Unpublished master's thesis, Univer. of Chicago, 1947.
3. GRIFFITHS, W. *Behavior difficulties of children as perceived and judged by parents, teachers, and children themselves*. Minneapolis: Univer. of Minnesota Press, 1952.
4. KENDALL, M. G. *Rank correlation methods*. London: Griffin, 1948.
5. KRUSKAL, W. H., & WALLIS, W. A. Use of ranks in one-criterion variance analysis. *J. Amer. stat. Ass.*, 1952, **47**, 583-621.
6. LANDISBERG, SELMA, & SNYDER, W. U. Nondirective play therapy. *J. clin. Psychol.*, 1946, **2**, 203-213.
7. LEBO, D. The relationship of response categories in play therapy to chronological age. *J. Child Psychiat.*, 1952, **2**, 330-336.
8. LEBO, D. Quantification of the nondirective play therapy process. *J. genet. Psychol.*, 1955, **86**, 375-378.

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